

EPA SLN No. WY120003

24(C) CHECKLIST

STATE: <u>WYOMING</u>	SLN NO. <u>WY120003</u>
DATE REGISTERED: <u>07-05-2012</u>	90-DAY DATE: <u>10-05-2012</u>
SPECIFIC SPECIAL LOCAL NEED: _____	SITE: _____
_____	PEST/PROBLEM: _____
_____	_____

1. Is the State certified to issue this type of registration? _____
2. Was the EPA Application/Notification Form submitted? _____
3. Was all the required information included on the form? _____
4. Was a confidential formula submitted (for new products)? _____
5. Is this registration for a "CHANGED USE PATTERN"? _____
6. Has an FR document been prepared for this "CHANGED USE PATTERN"? _____
7. Tolerances required? _____ Establishment? _____ Citation: _____
8. Full labeling being used? _____ Supplemental directions? _____
9. Does label state "FOR DISTRIBUTION AND USE ONLY WITHIN (State)"? _____
10. Does full label comply with 40 CFR 162.18, as follows:
- | | |
|---|-------|
| a. Product name, brand or trademark? | _____ |
| b. Name and address of registrant? | _____ |
| c. Net contents? | _____ |
| d. Product registration number? | _____ |
| e. Producing establishment number? | _____ |
| f. Ingredient statement? | _____ |
| g. Precautionary labeling? | _____ |
| h. Directions for use for special local need? | _____ |
| i. Use classification? | _____ |

Was proper format followed? _____

11. Is supplemental directions for use labeling satisfactory? _____
12. Was supplemental labeling compared with EPA-registered label? _____

COMMENTS: _____

1. SLN No. WY1200032. PM 09

3. Action Code _____

4. State Issue Date

0	7	0	5	1	2
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5. Date Received by EPA

0	7	1	6	1	2
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6. Date Received by PM

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7. Chemical Name _____

8. Chemical Code _____

9. Use _____

10. Reviews requested:

	Date Sent	Date Due	Date Returned
HED			
EFB			
RCB			
EEB			
TB			
RD			
S			
Precaution			
Labeling			
Chemistry			
Efficacy			

Response
Code

Response Date

11. Status _____

12. Final Action:

Response Code _____

Response Date

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United States Environmental Protection Agency
Office of Pesticide Programs, Registration Division (7505C)
Washington, DC 20460

**Application for/Notification of State Registration
of a Pesticide To Meet a Special Local Need**
(Pursuant to section 24(c) of the Federal Insecticide,
Fungicide, and Rodenticide Act, as Amended)

For State Use Only

Registration No. Assigned

12-0003

Date Registration Issued

7/5/12

1. Name and Address of Applicant for Registration

Liphatech, Inc.
3600 W. Elm Street
Milwaukee, WI 53209

2. Product is (Check one)

EPA-Registered



EPA Registration Number

7173-286

New (not EPA-registered)

Attach EPA Form 8570-4, Confidential Statement of
Formula for new products.

EPA Company Number

7173-WI-1

3. Active Ingredient(s) in Product

chlorophacinone

4. Product Name

Rozol Prairie Dog Bait

5. If this is a food/feed use, a tolerance or other residue clearance is
required. Cite appropriate regulations in 40 CFR Part 180, 185, and/or
186. Not a food or feed use

6. Type of Registration (Give details in Item 13 or on a separate
page, properly identified and attached to this form):☐ a. To permit use of a new product.☒ b. To amend EPA registrations for one or more of the following purposes:☐ (1) To permit use on additional crops or animals.☐ (2) To permit use at additional sites.☐ (3) To permit use against additional pests.☒ (4) To permit use of additional application techniques or equipment.☐ (5) To permit use at different application rates.☐ (6) Other (specify below)10. Has FIFRA section 24(c) registration for this use of the
product ever, by another State, been (check appropriate
box(es), if known):

If any of the above are checked, list States in Item 13 below.

☐ No FIFRA section 24(c) Action

7. Nature of Special Local Need (check one)



There is no pesticide product registered by EPA for such use.

There is no EPA-registered pesticide product which, under the conditions of use within
the State, would be as safe and/or as efficacious for such use within the terms and
conditions of EPA registration.

An appropriate EPA-registered pesticide product is not available.

8. If this registration is an amendment to an EPA-registered product, is it
for a "new use" as defined in 40 CFR 152.3?

Yes (discuss in Item 13 below)



No

9. Has an EPA Registration or Experimental Use Permit for this chemical ever been
(check applicable box(es), if known):

Suspended



Registration



Experimental Use Permit



No Previous Permit Action

11. Endangered Species Act: (Give details in Item 13 or on a separate page,
properly identified and attached to this form)

See attached

Identify the counties where this pesticide will be used. If Statewide, indicate "all."
Provide a list of Federally protected endangered/threatened species which occur in
the areas of proposed use. All

12. Indicate use status of Special Local Need, i.e., planned dates of
use:

From: 10/1/2012

To: 03/15/2013

Signature of Applicant or Authorized Representative

Title
Manager of Regulatory Affairs

Telephone Number

(414) 410-7230

Date

6/28/12

13. Comments (attach additional sheet, if needed)

The proposed SLN would allow Rozol Prairie Dog Bait to be applied using
mechanical application equipment, in addition to the "hand baiting" technique
specified on the product label.

Determination by State Agency

This registration is for a Special Local Need and is being issued in accordance with section 24(c) of FIFRA, as amended. To the best of our
knowledge, the information above is correct, except as noted in "Comments" below or in attachments.

Name, Title, and Address of State Agency Official

Shane Howe
Inspection Specialist II
6607 Campsteel Rd.
Cheranne, WY 82002

Title

Inspection Specialist II

Telephone Number

(307) 777-6573

Date

7/5/12

Comments (by State Agency Only)

Received by EPA

31.01.12

003

RESTRICTED USE PESTICIDE

DUE TO POTENTIAL SECONDARY TOXICITY TO NONTARGET ORGANISMS

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

24(c) SUPPLEMENTAL LABEL

FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF WYOMING

This label valid until March 15, 2013, or until otherwise amended, disapproved or withdrawn

rozol® PRAIRIE DOG BAIT

EPA SLN No. WY-

EPA Registration No. 7173-286

EPA Est No. 7173-WI-1

FOR APPLICATION BY MECHANICAL BAIT PLACEMENT MACHINE TO CONTROL BLACK-TAILED PRAIRIE DOGS (*Cynomys ludovicianus*) ON RANGELAND AND ADJACENT NONCROP AREAS

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling, which includes this supplemental label and the label for Rozol Prairie Dog Bait, EPA Reg. No. 7173-286. Both of these labels must be in the possession of the user at the time of application. Follow all directions of this supplemental label and all applicable directions, restrictions and precautions on the label for EPA Reg. No. 7173-286.

Use restrictions: This product may only be used in underground applications to control black-tailed prairie dogs (*Cynomys ludovicianus*) on rangeland and noncrop areas in Wyoming. Apply between October 1 and March 15 of the following year, when animals will most readily take the grain bait. This product is toxic to nontarget wildlife and fish. Do not allow bait to be placed outside of the prairie dog burrow. Do not allow children, pets, domestic animals or persons not involved in the application to be in the area where the product is being applied. Do not allow livestock to graze in treated areas for 14 days after treatment and when no bait is found above ground. Before applying this product, identify active prairie dog burrows by visual observation. The openings of active burrows will generally be free of leaves, seeds, other debris or spider webs, and will show freshly turned earth, and have prairie dog feces nearby.

Application: Apply 1/4 cup (53 grams or nearly 2 ounces) of bait at least 6 inches down active prairie dog burrows. Application may be made a mechanical bait application machine that is designed, constructed and operated in a manner that ensures that bait is properly placed at least 6 inches down the prairie dog burrows.

Make sure no bait is left on the soil surface at the time of application. Applicator must retrieve and dispose of any bait that is spilled above ground or placed less than 6 inches down the burrow entrance. Mechanical bait application machines must be calibrated to ensure that the proper amount of bait is dispensed into each prairie dog burrow.

Follow-up: The applicator must return to the site within 4 days after bait application, and at 1 to 2 day intervals, to collect and properly dispose of any bait or dead or dying prairie dogs found on the surface. The applicator must follow all label instructions for conducting carcass searches, proper disposal of carcasses, and reapplication. (062812)

LIPHATECH

24(c) registrant

Liphatech, Inc.
3600 W. Elm Street
Milwaukee, WI 53209
(414) 351-7476

PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals

CAUTION: Harmful if swallowed or absorbed through the skin because it may reduce the clotting ability of blood and cause bleeding. Keep away from children, domestic animals and pets. Do not get in eyes on skin or on clothing. All handlers (including applicators) must wear shoes plus socks, and gloves. Any person who retrieves carcasses or unused bait following application of this product must wear gloves.

USER SAFETY REQUIREMENTS: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco or using the toilet and change into clean clothing.

FIRST AID: Have label when obtaining treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor.

If on skin: Take off contaminated clothing. Rinse skin with plenty of cool water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

TREATMENT FOR PET POISONING: If animal eats bait, call veterinarian at once.

NOTE TO PHYSICIAN OR VETERINARIAN: Anticoagulant Chlorophacinone: If swallowed, this material may reduce the clotting ability of the blood and cause bleeding. For humans or dogs that have ingested this product and/or have obvious poisoning symptoms (bleeding or prolonged prothrombin times), give Vitamin K₁ intramuscularly or orally.

ENVIRONMENTAL HAZARDS: This product is toxic to fish and wildlife. Dogs and other predatory and scavenging mammals and birds might be poisoned if they feed upon animals that have eaten this bait. Do not apply directly to water, or to areas where surface water is present. Do not contaminate water by cleaning of equipment or disposal of wastes. Runoff also may be hazardous to aquatic organisms in water adjacent to treated areas.

ENDANGERED SPECIES CONSIDERATIONS: NOTICE: It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species. This product may pose a hazard to endangered species. Do not use this product within prairie dog towns in the state of the black-footed ferret without first contacting an endangered species specialist. Fish and Wildlife Service office. Applicator may obtain information regarding occurrence of endangered species and use limitations for this product by calling EPA's Endangered Species Hotline at 1-800-447-3813 to obtain a "Pesticides and Endangered Species" pamphlet for your county. You may also consult your local agricultural extension office or state pesticide lead agency to determine if there are any requirements for this product.

RESTRICTED USE PESTICIDE DUE TO HAZARD TO NONTARGET ORGANISMS

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.



Active Ingredient: chlorophacinone 0.06%
Inert Ingredients 99.94%
Total 100.00%

EPA Reg. No. 7173-286

EPA Est. No. 7173-WI-1

KEEP OUT OF REACH OF CHILDREN

CAUTION: See side panel for additional precautionary statements.

LIPHATECH®

Liphatech, Inc.
3600 W. Elm Street
Milwaukee, WI 53209
(414) 351-1476

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ THIS LABEL and follow all use directions and precautions. Only use for sites, pests, and application methods specified on this label.

IMPORTANT: Do not expose children, pets, or other nontarget animals to rodenticides. To help prevent accidents:

1. Store product not in use in a location out of reach of children and pets.
2. Dispose of product container, unused, spoiled and unconsumed bait as specified on this label.

Use restrictions: This product may only be used as follows:

1. **Sites/Pests:** Black-Tailed Prairie Dogs (*Cynomys ludovicianus*) on rangeland and adjacent noncrop areas.
2. **States:** Colorado, Kansas, Nebraska, Oklahoma, Texas and Wyoming.
3. **Application Method:** Hand application of bait, at least 6 inches down prairie dog burrows. This product may only be used in underground applications. Do not apply bait on or above ground level. Treat only active burrows.
4. **Treatment Period:** Apply between October 1 and March 15 of the following year, when animals will most readily take the grain bait.
5. **Non-Applicators:** Do not allow children, pets, domestic animals or persons not involved in the application to be in the area where the product is being applied.
6. **Grazing Restriction:** Do not allow livestock to graze in treated areas for 14 days after treatment and when no bait is found above ground.

Site Assessment: Before applying this product, identify active prairie dog burrows by visual observation. The openings of active burrows are generally free of leaves, seeds, other debris or spider webs, and show fresh turned earth, and have prairie dog feces nearby.

Application: Apply 53 grams (1.9 ounces) of bait at least 6 inches down active prairie dog burrows. Make sure no bait is left on the soil surface at the time of application. Applicator must return and collect any bait that is spilled above ground or placed less than 6 inches down the burrow entrance.

Follow-up: If animals have eaten the bait, they will begin to die off in 4 to 5 days after they eat a lethal amount. The applicator must return to the site within 4 days after bait application, and at 1 to 2 day intervals, to collect and properly dispose of any bait or dead or dying animals on the surface. All carcasses found above ground must be collected and disposed of properly. Continue to collect and dispose of dead or dying prairie dogs and search for nontarget animals for at least two weeks, but longer if carcasses are still being found at that time. Carcass collections should occur in late afternoon, near sundown, to reduce the potential of nocturnal animals finding carcasses and dying animals. Bury carcasses on site in holes dug at least 18 inches deep or in inactive burrows (no longer being used by prairie dogs or other species) to avoid non-target animal scavenging. Burial includes covering and packing the hole or burrow with soil. If burial is not practical (due to frozen ground, etc) and other disposal methods are allowed by state and local authorities, collected carcasses may be disposed of by such other methods as insure that the carcasses are inaccessible to scavengers.

Reapplication: If prairie dog activity persists several weeks or months after the bait was applied, a second application may be made, by treating burrows in the same manner, time period and procedure as the first application. Follow all application, site assessment and follow-up directions and use restrictions as found above.

WARRANTY: To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions. (072811)

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store only in original container in a cool, dry place inaccessible to children and pets. Keep containers closed and away from other chemicals.

Pesticide Disposal: Wastes resulting from the use of this product may be placed in trash or delivered to an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Dispose of empty container by placing in trash, at an approved waste disposal facility or by incineration or, if allowed by state and local authorities, by burning. If burned stay out of smoke.

EPA Reg. No. 7173-286
EPA Est. No. 7173-WI-1



Species Reports

Environmental Conservation Online System

(<http://www.fws.gov>)

Listings and occurrences for Wyoming

Notes:

- This report shows the listed species associated in some way with this state.
- This list does not include experimental populations and similarity of appearance listings.
- This list includes non-nesting sea turtles and whales in State/Territory coastal waters.
- This list includes species or populations under the sole jurisdiction of the National Marine Fisheries Service.
- Click on the highlighted scientific names below to view a Species Profile for each listing.

Summary of Animals listings

Animal species listed in this state and that occur in this state (5 species)

Status (javascript:launch ('/tess_public/html/db-status.html');)	Species
T	Bear, grizzly lower 48 States, except where listed as an experimental population or delisted (Ursus arctos horribilis (/speciesProfile/profile/speciesProfile.action?spcode=A001))
E	Dace, Kendall Warm Springs (Rhinichthys osculus thermalis (/speciesProfile/profile/speciesProfile.action?spcode=E00S))
E	Ferret, black-footed entire population, except where EXPN (Mustela nigripes (/speciesProfile/profile/speciesProfile.action?spcode=A004))
T	Lynx, Canada (Contiguous U.S. DPS) (Lynx canadensis (/speciesProfile/profile/speciesProfile.action?spcode=A073))
E	Toad, Wyoming (Bufo baxteri (=hemiophrys (/speciesProfile/profile/speciesProfile.action?spcode=D01R)))

Animal species listed in this state that do not occur in this state (6 species)

Status (javascript:launch ('/tess_public/html/db-status.html');)	Species
E	Chub, bonytail entire (Gila elegans (/speciesProfile/profile/speciesProfile.action?spcode=E020))
E	Chub, humpback entire (Gila cypha (/speciesProfile/profile/speciesProfile.action?spcode=E000))
E	Crane, whooping except where EXPN (Grus americana (/speciesProfile/profile/speciesProfile.action?spcode=B003))
E	Pikeminnow (=squawfish), Colorado except Salt and Verde R. drainages, AZ (Ptychocheilus lucius (/speciesProfile/profile/speciesProfile.action?spcode=E006))

<u>Status (javascript:launch ('/tess_public/html/db-status.html'));</u>	<u>Species</u>
E	Wolf, gray U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, KS, KY, LA, MA, MD, ME, MO, MS, NC, NE, NH, NJ, NV, NY, OK, PA, RI, SC, TN, VA, VT and WV; those portions of AZ, NM, and TX not included in an experimental population; and portions of IA, IN, IL, ND, OH, OR, SD, UT, and WA. Mexico. (<u><i>Canis lupus</i></u> (/speciesProfile/profile/speciesProfile.action?scode=A00D))
Animal listed species occurring in this state that are not listed in this state (1 species)	

<u>Status (javascript:launch ('/tess_public/html/db-status.html'));</u>	<u>Species</u>
T	Mouse, Preble's meadow jumping U.S.A., north-central CO (<u><i>Zapus hudsonius preblei</i></u> (/speciesProfile/profile/speciesProfile.action?scode=A0C2))

Summary of Plant listings

Plant species listed in this state and that occur in this state (4 species)

<u>Status (javascript:launch ('/tess_public/html/db-status.html'));</u>	<u>Species</u>
T	Butterfly plant, Colorado (<u><i>Gaura neomexicana</i> var. <i>coloradensis</i></u> (/speciesProfile/profile/speciesProfile.action?scode=Q0VV))
T	Ladies'-tresses, Ute (<u><i>Spiranthes diluvialis</i></u> (/speciesProfile/profile/speciesProfile.action?scode=Q2WA))
E	Penstemon, blowout (<u><i>Penstemon haydenii</i></u> (/speciesProfile/profile/speciesProfile.action?scode=Q2EX))
T	Yellowhead, desert (<u><i>Yermo xanthocephalus</i></u> (/speciesProfile/profile/speciesProfile.action?scode=Q3GI))

Last updated: June 26, 2012

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Level		Mean
both	A	3.6190476
machine	A	2.0952381

Levels not connected by same letter are significantly different.

Level	- Level	Difference	Std Err Dif	Lower CL	Upper CL	p-Value	Difference
hand	machine	2.761905	1.421315	-0.64483	6.168642	0.1346	_____
both	machine	1.523810	1.519450	-2.11815	5.165765	0.5776	_____
hand	both	1.238095	1.421315	-2.16864	4.644832	0.6603	_____

Comparison of Bait location and amount for Rozol Prairie Dog Bait, applications made by hand vs. applications made with application equipment.

**By Laura Quakenbush, Pesticide Registration Coordinator, Colorado Dept of Agriculture
June 13, 2011**

Reworking of data and information from:

- "Field Efficacy and Hazards of Rozol Bait for Controlling Black-tailed Prairie Dogs (*Cynomys ludovicianus*). Lee and Hygnstrom, 2007.
- Statistical Analysis of Bait Placement in a Prairie Dog Efficacy Study. Charles Lee, 2011.

Introduction: Colorado Department of Agriculture is currently considering an application from Liphatech, Inc. for a Special Local Need FIFRA 24(c) registration that would allow the use of mechanical application equipment to apply Rozol Prairie Dog Bait (EPA reg. # 7173-286) for prairie dog control. The efficacy study that was submitted to CDA in 2007 for an earlier SLN request included testing in many locations (Lee and Hygnstrom, 2007). For some of these locations, bait was applied by hand, at others it was applied by application equipment, and at others it was applied by both methods.

Liphatech recently provided us with the report "Statistical analysis of bait placement in a prairie dog efficacy study" (Lee, 2011), which used the observations on bait location and amount that were generated in the 2006/07 efficacy study. He performed one-way ANOVA statistical analyzes to look at the effect of application method. The analysis failed to establish a statistically significant effect of application equipment for all but one of the 56 analyzes done.

When I looked through the raw data sheets for observations on bait placement, it appeared that the largest category of bait amount (>100 grains of wheat bait) may have been observed most often at burrows where the location of bait marked was >6" below the surface down the burrow. This is the location that is mandated by the current label directions for Rozol Prairie Dog Bait ("Rozol PDB") so should not be a consideration for whether hand applications are better than mechanical applications.

I prepared my own data summary from the raw data sheets included with the original 2007 report to look at frequency and amount of bait found outside of the labeled application site for Rozol PDB (e.g. bait observed on the surface or less than 6 inches down the burrow).

Method summary: From October, 2006 through March of 2007, Rozol PDB was applied to prairie dog colonies at 10 different sites. Applications were made by hand at 4 sites, made with application equipment at 3 sites, and with a mixture of hand and equipment methods at 3 sites. I only included those that used one method or the other, not the sites that used a mixture of both application methods.

According to Lee and Hygnstrom, 2007, bait application was made such that all of the bait was at least 6 inches into the burrow, and any bait spilled on the ground or placed less than 6 inches down the burrow was removed before moving on to the next burrow. The day of application was designated as "Day 0". For the next 7 days (designated as Day 1 – Day 7) 50 burrows for each site along a transect line were examined. A single record page listed all these choices for all 50 burrows for one observation day.

For each burrow, the observer circled one choice for the following:

Bait Visible?	Yes	No	
Location:	surf	0-6"	>6"
Approx number Of grains visible:	<25	25-100	>100

Only one choice was circled for each "question".

I have assumed that the "worst" location where bait was seen was selected. For example: If any was seen on the surface this was circled regardless of bait presence down the burrow; if none was on the surface and some was seen at both 2-3 inches and also below 6 inches, then 0-6" was selected.

I have also assumed the selection for the number of grains visible was total amount seen near on in the burrow (total amount seen at all 3 location selections).

When I summarized the raw data sheets, two sets of numbers were determined for each observation for each burrow (e.g. two rows of numbers for each record page): One for all the observations, and one excluding burrows where the location was >6" down (see Table A). Since this is where the bait is supposed to be if properly applied, excluding this should give a clearer picture of movement of bait after application and/or the accuracy of bait placement.

Information on the application method used for each site was taken from Lee, 2011, pgs 7 and 8.

If the methods described in Lee and Hygnstrom, 2007 are an accurate description of the procedures used, then bait placement at day 0 should have been identical regardless of application method. This would mean that the information on bait observed on the surface or less than 6" down the burrow was due to movement of bait by prairie dogs or other animals, not placement at the time of application.

However, it seems that Liphatech has submitted the Lee, 2011 statistical report in defense of allowing application equipment. So perhaps Charles Lee or Liphatch suspects or has learned that not all applications in this study were conducted as described in the report? Or EPA is skeptical of the method description attesting that all of these treated burrows should have started out with identical bait placement regardless of application method?

Results and Discussion: Regardless of application method (by hand or with equipment), no bait was seen at many of the treated burrows even 1 day after application (Table B). On average, only 52% of burrows had any bait visible 1 day after application. Only an average of 8% had any bait visible by 7 days after application (Figure 1).

Other possible factors might include who assessed each site, and the time of year that applications were made. 3 out of 4 of the hand application sites and 1 of the 3 mechanical application sites were assessed by "CL" while 1 of the hand sites and 2 of the mechanical sites were assessed by "Josh". No correlations are obvious with the two different assessors.

Two of the by hand sites were treated in October, but none of the mechanical-only sites were treated in October. Only 1 of the 4 hand-application sites were treated in March, while 2 of the 3 mechanical-only sites were treated in March. So if bait had better acceptance in October than in March (when green-up may have begun) this would confound any assessment of application method.

Observation of bait on the surface was rare, with a maximum of 3 burrows (6% of burrows) at one of the hand-applied sites (Table B, Figure 2).

Figure 1. # of burrows with Bait visible, 0-7 DAT

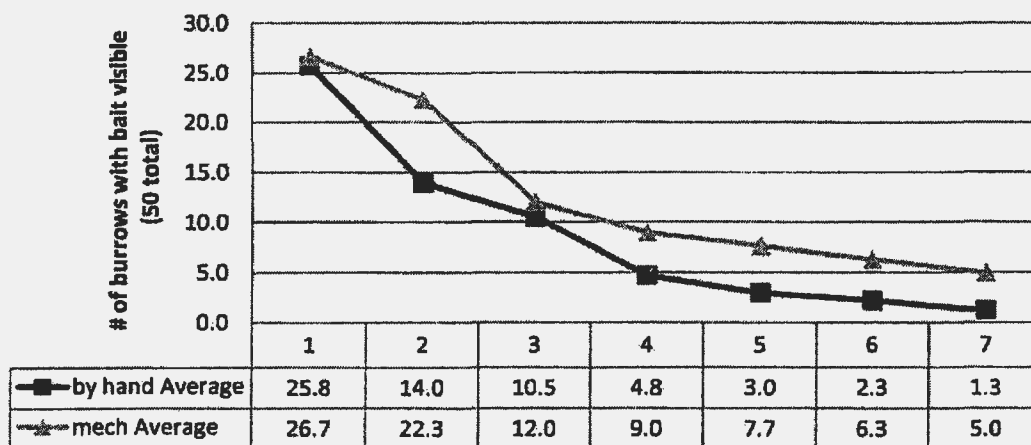
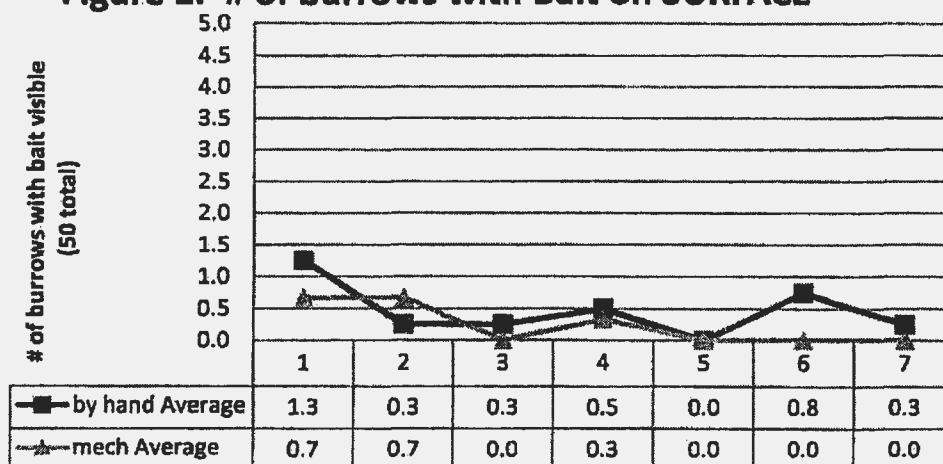


Figure 2. # of burrows with Bait on SURFACE



The pattern for bait seen in the burrow but less than 6" down was variable, both for how frequent this was 1 day after treatment, and in how quickly this decreased with time. The average for the 4 locations with hand locations appears lower than for the average of the 3 locations with mechanical applications, but the worst site (Weiss West) was one with hand applications (Table B, Figure 3). This site is also the one "by hand" site with applications made in March.

Figure 3. # of burrows with Bait 0-6" down burrow

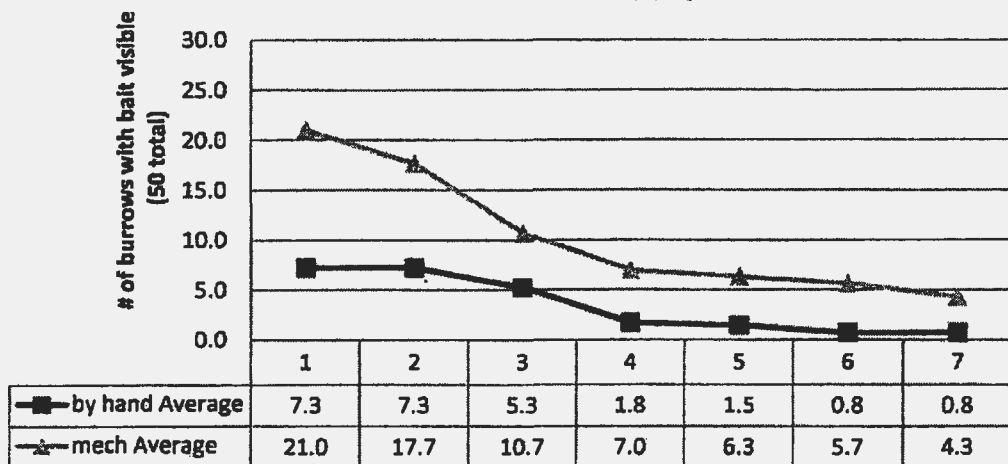
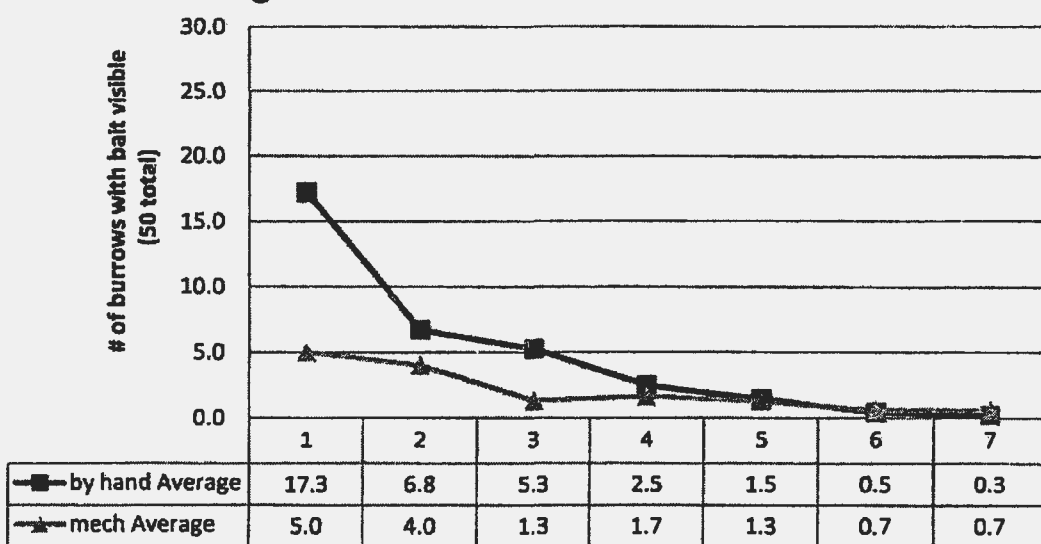
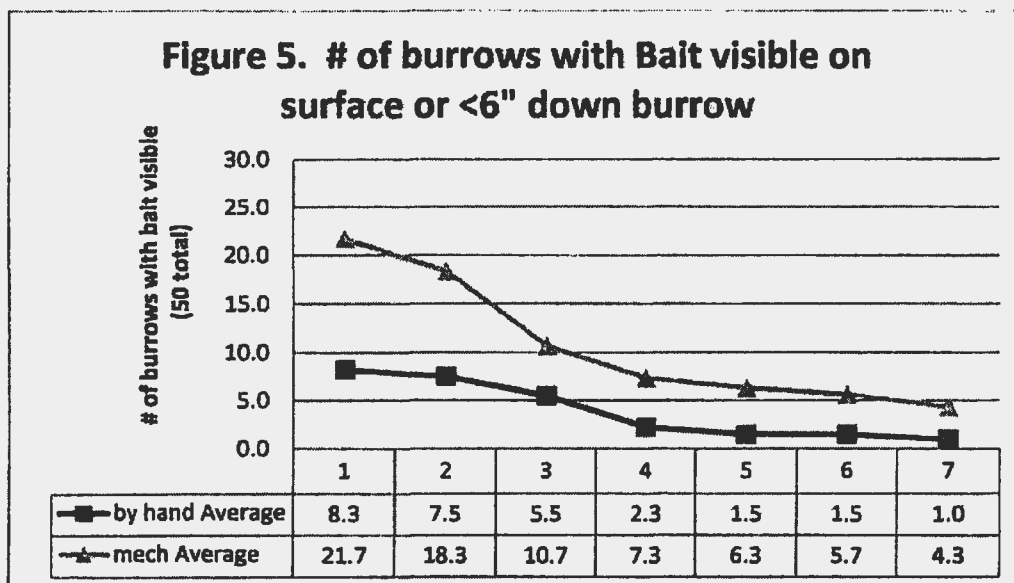


Figure 4. # of burrows with Bait >6" down burrow



Observations were also made of the amount of bait observed, with categories based on # of grains of wheat bait observed. For this part of the discussion, I will concentrate on only those burrows where the bait was observed on the surface or less than 6" below the surface.



For the first 2 days after application, sites with mechanical applications appeared to have more burrows with bait found less than 6 inches below ground, and larger amounts of bait observed, than sites with hand applications. This declined with time. (Figure 5, Tables C and D).

Table D. % of burrows with observed bait amount, on surface or less than 6" down burrow.

application method	amount of bait	1	2	3	4	5	6	7
by hand	<25 grains	11.5%	9.0%	7.0%	3.0%	2.0%	2.5%	1.5%
	25-100 grains	4.5%	5.0%	4.0%	1.5%	1.0%	0.5%	0.5%
	>100 grains	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
mechanical	<25 grains	19.3%	18.0%	6.7%	7.3%	6.7%	7.3%	5.3%
	25-100 grains	12.0%	10.0%	7.3%	6.0%	4.7%	4.0%	3.3%
	>100 grains	11.3%	7.3%	7.3%	1.3%	0.0%	0.0%	0.0%

I took the "worst case" site for each application method and calculated the approximate amount of bait (as % of total applied) that was observed on the surface or < 6" below the surface. The application rate of ¼ cup per burrow would apply, on average, 1060 grains of wheat (personal communication, Tom Schmit, Liphatech). The numbers selected for number of grains for each category were the same as used by Lee and Hygnstrom (2007) for their calculation of a "grain index". For the worst case site (cemetary site), this estimate indicates that less than 1% of applied bait was observed by 5 days after application (Table E). The highest category (>100 grains) could mean anywhere from about 10% to

100% of the applied bait was observed, even though the value used for this calculation was 113 grains. However, there were no burrows with quantities observed in this highest category by 5 days after application. Even 1 day after application of bait, the amount of bait seen other than still within the target application site was only 4% of the amount applied even at the "worst case" location (Table E).

Table A. Bait availability, from Liphatech Rozoi Bait field efficacy study, hand-applied vs. mechanical applied locations only (excludes sites where method was "both").												
All information, vs. ("x") Information excluding burrows where all observed bait was at labeled application site (>6" from surface).												
exclude	Trial #	colony	ap date	method	DAT	# of burrows out of 50 total				# of grains visible		
						visible	location			<25	"25-100	>100
>6" loc							surf	0-6"	>6"			
	1	sallee	oct	1-by hand	1	24	1	0	23	12	6	6
x	1	sallee	oct	1-by hand	1	1	1			1		
	1	sallee	oct	1-by hand	2	3	0	0	4	1	3	0
x	1	sallee	oct	1-by hand	2	0						
	1	sallee	oct	1-by hand	3	2	0	0	2	0	2	0
x	1	sallee	oct	1-by hand	3	0						
	1	sallee	oct	1-by hand	4	3	1	0	2	1	1	1
x	1	sallee	oct	1-by hand	4	1	1			1		
	1	sallee	oct	1-by hand	5	2	0	1	1	1	0	1
x	1	sallee	oct	1-by hand	5	1	0	1	0	1	0	0
	1	sallee	oct	1-by hand	6	3	2	0	1	2	0	1
x	1	sallee	oct	1-by hand	6	2	2	0	0	2	0	0
	1	sallee	oct	1-by hand	7	1	1	0	0	1	0	0
x	1	sallee	oct	1-by hand	7	1	1	0	0	1	0	0
	1	hogan	oct	1-by hand	1	14	3	3	8	9	2	3
x	1	hogan	oct	1-by hand	1	6	3	3	0	4	2	0
	1	hogan	oct	1-by hand	2	10	1	5	4	6	4	0
x	1	hogan	oct	1-by hand	2	6	1	5	0	4	2	0
	1	hogan	oct	1-by hand	3	4	1	0	4	4	0	0
x	1	hogan	oct	1-by hand	3	1	1	0	0	1	0	0
	1	hogan	oct	1-by hand	4	3	1	0	2	3	0	0
x	1	hogan	oct	1-by hand	4	1	1	0	0	1	0	0
	1	hogan	oct	1-by hand	5	2	0	0	2	2	0	0
x	1	hogan	oct	1-by hand	5	0	0	0	0	0	0	0
	1	hogan	oct	1-by hand	6	2	1	0	0	2	0	0
x	1	hogan	oct	1-by hand	6	1	1	0	0	1	0	0
	1	hogan	oct	1-by hand	7	0	0	0	0	0	0	0
x	1	hogan	oct	1-by hand	7	0	0	0	0	0	0	0
	2	lashley	dec	1-by hand	1	30	1	2	27	20	5	5
x	2	lashley	dec	1-by hand	1	2	0	2	0	1	0	1
	2	lashley	dec	1-by hand	2	12	0	4	8	10	2	0
x	2	lashley	dec	1-by hand	2	4	0	4	0	3	1	0
	2	lashley	dec	1-by hand	3	5	0	1	4	4	1	0
x	2	lashley	dec	1-by hand	3	1	0	1	0	0	1	0
	2	lashley	dec	1-by hand	4	3	0	0	3	3	0	0
x	2	lashley	dec	1-by hand	4	0	0	0	0	0	0	0
	2	lashley	dec	1-by hand	5	3	0	0	3	3	0	0
x	2	lashley	dec	1-by hand	5	0	0	0	0	0	0	0
	2	lashley	dec	1-by hand	6	2	0	1	1	2	0	0
x	2	lashley	dec	1-by hand	6	1	0	1	0	1	0	0
	2	lashley	dec	1-by hand	7	2	0	1	1	2	0	0
x	2	lashley	dec	1-by hand	7	1	0	1	0	1	0	0
	3	Weiss West	Mar	1-by hand	1	35	0	24	11	25	10	0
x	3	Weiss West	Mar	1-by hand	1	24	0	24	0	17	7	0
	3	Weiss West	Mar	1-by hand	2	31	0	20	11	21	10	0
x	3	Weiss West	Mar	1-by hand	2	20	0	20	0	11	7	0
	3	Weiss West	Mar	1-by hand	3	31	0	20	11	21	9	0
x	3	Weiss West	Mar	1-by hand	3	20	0	20	0	13	7	0
	3	Weiss West	Mar	1-by hand	4	10	0	7	3	7	3	2
x	3	Weiss West	Mar	1-by hand	4	7	0	7	0	4	3	0
	3	Weiss West	Mar	1-by hand	5	5	0	5	0	3	2	0
x	3	Weiss West	Mar	1-by hand	5	5	0	5	0	3	2	0
	3	Weiss West	Mar	1-by hand	6	2	0	2	0	1	1	0
x	3	Weiss West	Mar	1-by hand	6	2	0	2	0	1	1	0

exclude >6" loc	Trial #	colony	ap date	method	DAT	# of burrows out of 50 total				# of grains visible		
						visible	location			<25	*25-100	>100
							surf	0-6"	>6"			
	3	Weiss West	Mar	1-by hand	7	2	0	2	0	1	1	0
x	3	Weiss West	Mar	1-by hand	7	2	0	2	0	1	1	0
	2	cemetary	dec	2-mech	1	32	2	22	8	6	8	18
x	2	cemetary	dec	2-mech	1	24	2	22	0	2	6	15
	2	cemetary	dec	2-mech	2	26	1	19	6	6	6	13
x	2	cemetary	dec	2-mech	2	20	1	19	0	4	5	9
	2	cemetary	dec	2-mech	3	21	0	18	3	6	4	11
x	2	cemetary	dec	2-mech	3	18	0	18	0	6	3	9
	2	cemetary	dec	2-mech	4	16	1	11	4	9	5	2
x	2	cemetary	dec	2-mech	4	12	1	11	0	7	3	2
	2	cemetary	dec	2-mech	5	15	0	11	4	9	4	2
x	2	cemetary	dec	2-mech	5	11	0	11	0	7	2	0
	2	cemetary	dec	2-mech	6	13	0	11	2	8	5	2
x	2	cemetary	dec	2-mech	6	11	0	11	0	7	4	0
	2	cemetary	dec	2-mech	7	12	0	10	2	7	5	0
x	2	cemetary	dec	2-mech	7	10	0	10	0	6	4	0
	3	Sowers	mar	2-mech	1	18	0	17	1	15	3	0
x	3	Sowers	mar	2-mech	1	17	0	17	0	14	3	0
	3	Sowers	mar	2-mech	2	14	1	12	1	13	1	0
x	3	Sowers	mar	2-mech	2	13	1	12	0	12	1	0
	3	Sowers	mar	2-mech	3	1	0	1	0	0	1	0
x	3	Sowers	mar	2-mech	3	1	0	1	0	0	1	0
	3	Sowers	mar	2-mech	4	1	0	1	0	1	0	0
x	3	Sowers	mar	2-mech	4	1	0	1	0	1	0	0
	3	Sowers	mar	2-mech	5	1	0	1	0	1	0	0
x	3	Sowers	mar	2-mech	5	1	0	1	0	1	0	0
	3	Sowers	mar	2-mech	6	1	0	1	0	1	0	0
x	3	Sowers	mar	2-mech	6	1	0	1	0	1	0	0
	3	Sowers	mar	2-mech	7	0	0	0	0	0	0	0
x	3	Sowers	mar	2-mech	7	0	0	0	0	0	0	0
	3	magnani	mar	2-mech	1	30	0	24	6	15	13	2
x	3	magnani	mar	2-mech	1	24	0	24	0	13	9	2
	3	magnani	mar	2-mech	2	27	0	22	5	13	12	2
x	3	magnani	mar	2-mech	2	22	0	22	0	11	9	2
	3	magnani	mar	2-mech	3	14	0	13	1	4	8	2
x	3	magnani	mar	2-mech	3	13	0	13	0	4	7	2
	3	magnani	mar	2-mech	4	10	0	9	1	3	7	0
x	3	magnani	mar	2-mech	4	9	0	9	0	3	6	0
	3	magnani	mar	2-mech	5	7	0	7	0	2	5	0
x	3	magnani	mar	2-mech	5	7	0	7	0	2	5	0
	3	magnani	mar	2-mech	6	5	0	5	0	3	2	0
x	3	magnani	mar	2-mech	6	5	0	5	0	3	2	0
	3	magnani	mar	2-mech	7	3	0	3	0	2	1	0
x	3	magnani	mar	2-mech	7	3	0	3	0	2	1	0

TABLE B. Results of Bait monitoring 1 to 7 days after application. Values are # of burrows out of 50 evaluated.

Average of # of burrows w/ bait visible			DAT						
method	colony (assessed by)	ap date	1	2	3	4	5	6	7
by hand	hogan (CL)	oct	14.0	10.0	4.0	3.0	2.0	2.0	0.0
	lashley (CL)	dec	30.0	12.0	5.0	3.0	3.0	2.0	2.0
	sallee (CL)	oct	24.0	3.0	2.0	3.0	2.0	3.0	1.0
	Weiss West (Josh)	Mar	35.0	31.0	31.0	10.0	5.0	2.0	2.0
by hand Average			25.8	14.0	10.5	4.8	3.0	2.3	1.3
mech	cemetery (CL)	dec	32.0	26.0	21.0	16.0	15.0	13.0	12.0
	magnani (Josh)	Mar	30.0	27.0	14.0	10.0	7.0	5.0	3.0
	Sowers (Josh)	Mar	18.0	14.0	1.0	1.0	1.0	1.0	0.0
mech Average			26.7	22.3	12.0	9.0	7.7	6.3	5.0

Average of bait on surface			DAT						
method	colony	ap date	1	2	3	4	5	6	7
by hand	hogan	oct	3.0	1.0	1.0	1.0	0.0	1.0	0.0
	lashley	dec	1.0	0.0	0.0	0.0	0.0	0.0	0.0
	sallee	oct	1.0	0.0	0.0	1.0	0.0	2.0	1.0
	Weiss West	Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0
by hand Average			1.3	0.3	0.3	0.5	0.0	0.8	0.3
mech	cemetery	dec	2.0	1.0	0.0	1.0	0.0	0.0	0.0
	magnani	Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sowers	Mar	0.0	1.0	0.0	0.0	0.0	0.0	0.0
mech Average			0.7	0.7	0.0	0.3	0.0	0.0	0.0

Average of bait 0-5"			DAT						
method	colony	ap date	1	2	3	4	5	6	7
by hand	hogan	oct	3.0	5.0	0.0	0.0	0.0	0.0	0.0
	lashley	dec	2.0	4.0	1.0	0.0	0.0	1.0	1.0
	sallee	oct	0.0	0.0	0.0	0.0	1.0	0.0	0.0
	Weiss West	Mar	24.0	20.0	20.0	7.0	5.0	2.0	2.0
by hand Average			7.3	7.3	5.3	1.8	1.5	0.8	0.8
mech	cemetery	dec	22.0	19.0	18.0	11.0	11.0	11.0	10.0
	magnani	Mar	24.0	22.0	13.0	9.0	7.0	5.0	3.0
	Sowers	Mar	17.0	12.0	1.0	1.0	1.0	1.0	0.0
mech Average			21.0	17.7	10.7	7.0	6.3	5.7	4.3

Average of Bait >5"			DAT						
method	colony	ap date	1	2	3	4	5	6	7
by hand	hogan	oct	8.0	4.0	4.0	2.0	2.0	0.0	0.0
	lashley	dec	27.0	8.0	4.0	3.0	3.0	1.0	1.0
	sallee	oct	23.0	4.0	2.0	2.0	1.0	1.0	0.0
	Weiss West	Mar	11.0	11.0	11.0	3.0	0.0	0.0	0.0
by hand Average			17.3	6.8	5.3	2.5	1.5	0.5	0.3
mech	cemetery	dec	8.0	6.0	3.0	4.0	4.0	2.0	2.0
	magnani	Mar	6.0	5.0	1.0	1.0	0.0	0.0	0.0
	Sowers	Mar	1.0	1.0	0.0	0.0	0.0	0.0	0.0
mech Average			5.0	4.0	1.3	1.7	1.3	0.7	0.7

TABLE B. Results of Bait monitoring 1 to 7 days after application. Values are # of burrows out of 50 evaluated.

Values are # of burrows out of 50 evaluated.												
Average of <25 method		colony	ap date	DAT								
by hand	Average			1	2	3	4	5	6	7		
		hogan	oct	9.0	6.0	4.0	3.0	2.0	2.0	0.0		
		lashley	dec	20.0	10.0	4.0	3.0	3.0	2.0	2.0		
		sallee	oct	12.0	1.0	0.0	1.0	1.0	2.0	1.0		
		Weiss West	Mar	25.0	21.0	21.0	7.0	3.0	1.0	1.0		
Average		colony	ap date	DAT								
by hand	Average			1	2	3	4	5	6	7		
				cemetery	dec	16.5	9.5	7.3	3.5	2.3	1.8	1.0
				magnani	Mar	6.0	6.0	6.0	9.0	9.0	8.0	7.0
				Sowers	Mar	15.0	13.0	4.0	3.0	2.0	3.0	2.0
		Average		15.0	13.0	0.0	1.0	1.0	1.0	0.0		
Average of "25-100 method		colony	ap date	DAT								
by hand	Average			1	2	3	4	5	6	7		
		hogan	oct	12.0	10.7	3.3	4.3	4.0	4.0	3.0		
		lashley										
		sallee										
		Weiss West										

Average of "25-100 method		colony	ap date	DAT							
by hand	mech			1	2	3	4	5	6	7	
	hogan	oct	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	
	lashley	dec	5.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	
	sallee	oct	6.0	3.0	2.0	1.0	0.0	0.0	0.0	0.0	
	Weiss West	Mar	10.0	10.0	9.0	3.0	2.0	1.0	1.0	1.0	
by hand Average				5.8	4.8	3.0	1.0	0.5	0.3	0.3	
mech	mech Average	cemetery	dec	8.0	6.0	4.0	5.0	4.0	5.0	5.0	5.0
		magnani	Mar	13.0	12.0	8.0	7.0	5.0	2.0	1.0	1.0
		Sowers	Mar	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
mech Average				8.0	6.3	4.3	4.0	3.0	2.3	2.0	

Average of "25-100 method		colony	ap date	DAT							
by hand	mech			1	2	3	4	5	6	7	
	hogan	oct	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	
	lashley	dec	5.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	
	sallee	oct	6.0	3.0	2.0	1.0	0.0	0.0	0.0	0.0	
	Weiss West	Mar	10.0	10.0	9.0	3.0	2.0	1.0	1.0	1.0	
by hand Average				5.8	4.8	3.0	1.0	0.5	0.3	0.3	
mech	mech Average	cemetery	dec	8.0	6.0	4.0	5.0	4.0	5.0	5.0	5.0
		magnani	Mar	13.0	12.0	8.0	7.0	5.0	2.0	1.0	1.0
		Sowers	Mar	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
mech Average				8.0	6.3	4.3	4.0	3.0	2.3	2.0	

Average of >100 method		colony		ap date		DAT						
by hand						1	2	3	4	5	6	7
						3.0	0.0	0.0	0.0	0.0	0.0	0.0
						5.0	0.0	0.0	0.0	0.0	0.0	0.0
						6.0	0.0	0.0	1.0	1.0	1.0	0.0
						0.0	0.0	0.0	2.0	0.0	0.0	0.0
by hand Average						3.5	0.0	0.0	0.8	0.3	0.3	0.0
mech						18.0	13.0	11.0	2.0	2.0	2.0	0.0
						2.0	2.0	2.0	0.0	0.0	0.0	0.0
						0.0	0.0	0.0	0.0	0.0	0.0	0.0
						6.7	5.0	4.3	0.7	0.7	0.7	0.0
						mech Average						

TABLE C. Excluding burrows with all bait still greater than 6 inches below surface, results of Bait monitoring 1 to 7 days after application. Values are # of burrows out of 50 evaluated.

Average of # of burrows w/ bait visible			DAT						
method	colony	ap date	1	2	3	4	5	6	7
by hand	hogan	oct	5.0	6.0	1.0	1.0	0.0	1.0	0.0
	lashley	dec	2.0	4.0	1.0	0.0	0.0	1.0	1.0
	sallee	oct	1.0	0.0	0.0	1.0	1.0	2.0	1.0
	Weiss West	Mar	24.0	20.0	20.0	7.0	5.0	2.0	2.0
by hand Average			8.3	7.5	5.5	2.3	1.5	1.5	1.0
mech	cemetery	dec	24.0	20.0	18.0	12.0	11.0	11.0	10.0
	magnani	Mar	24.0	22.0	13.0	9.0	7.0	5.0	3.0
	Sowers	Mar	17.0	13.0	1.0	1.0	1.0	1.0	0.0
mech Average			21.7	18.3	10.7	7.3	6.3	5.7	4.3

Average of bait on surface			DAT						
method	colony	ap date	1	2	3	4	5	6	7
by hand	hogan	oct	3.0	1.0	1.0	1.0	0.0	1.0	0.0
	lashley	dec	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	sallee	oct	1.0	0.0	0.0	1.0	0.0	2.0	1.0
	Weiss West	Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0
by hand Average			1.0	0.3	0.3	0.3	0.0	0.3	0.3
mech	cemetery	dec	2.0	1.0	0.0	1.0	0.0	0.0	0.0
	magnani	Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sowers	Mar	0.0	1.0	0.0	0.0	0.0	0.0	0.0
mech Average			0.7	0.7	0.0	0.3	0.0	0.0	0.0

Average of bait 0-6"			DAT						
method	colony	ap date	1	2	3	4	5	6	7
by hand	hogan	oct	3.0	5.0	0.0	0.0	0.0	0.0	0.0
	lashley	dec	2.0	4.0	1.0	0.0	0.0	1.0	1.0
	sallee	oct	0.0	0.0	0.0	0.0	1.0	0.0	0.0
	Weiss West	Mar	24.0	20.0	20.0	7.0	5.0	2.0	2.0
by hand Average			7.3	7.3	3.3	1.3	1.4	0.3	0.3
mech	cemetery	dec	22.0	19.0	18.0	11.0	11.0	11.0	10.0
	magnani	Mar	24.0	22.0	13.0	9.0	7.0	5.0	3.0
	Sowers	Mar	17.0	12.0	1.0	1.0	1.0	1.0	0.0
mech Average			21.0	17.7	10.7	7.0	6.3	5.7	4.3

TABLE C. Excluding burrows with all bait still greater than 6 inches below surface, results of Bait monitoring 1 to 7 days after application. Values are # of burrows out of 50 evaluated.

Average of <25 grains			DAT						
method	colony	ap date	1	2	3	4	5	6	7
by hand	hogan	oct	4.0	4.0	1.0	1.0	0.0	1.0	0.0
	lashley	dec	1.0	3.0	0.0	0.0	0.0	1.0	1.0
	sallee	oct	1.0	0.0	0.0	1.0	1.0	2.0	1.0
	Weiss West	Mar	17.0	11.0	13.0	4.0	3.0	1.0	1.0
by hand Average			5.8	4.5	3.5	1.5	1.0	1.3	0.8
mech	cemetery	dec	2.0	4.0	6.0	7.0	7.0	7.0	6.0
	magnani	Mar	13.0	11.0	4.0	3.0	2.0	3.0	2.0
	Sowers	Mar	14.0	12.0	0.0	1.0	1.0	1.0	0.0
mech Average			9.7	9.0	3.3	3.7	3.3	3.7	2.7

Average of 25-100 grains			DAT						
method	colony	ap date	1	2	3	4	5	6	7
by hand	hogan	oct	2.0	2.0	0.0	0.0	0.0	0.0	0.0
	lashley	dec	0.0	1.0	1.0	0.0	0.0	0.0	0.0
	sallee	oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Weiss West	Mar	7.0	7.0	7.0	3.0	2.0	1.0	1.0
by hand Average			2.3	2.5	2.0	0.8	0.5	0.3	0.3
mech	cemetery	dec	6.0	5.0	3.0	3.0	2.0	4.0	4.0
	magnani	Mar	9.0	9.0	7.0	6.0	5.0	2.0	1.0
	Sowers	Mar	3.0	1.0	1.0	0.0	0.0	0.0	0.0
mech Average			6.0	5.0	3.7	3.0	2.3	2.0	1.7

Average of >100 grains			DAT						
method	colony	ap date	1	2	3	4	5	6	7
by hand	hogan	oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	lashley	dec	1.0	0.0	0.0	0.0	0.0	0.0	0.0
	sallee	oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Weiss West	Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0
by hand Average			0.3	0.0	0.0	0.0	0.0	0.0	0.0
mech	cemetery	dec	15.0	9.0	9.0	2.0	0.0	0.0	0.0
	magnani	Mar	2.0	2.0	2.0	0.0	0.0	0.0	0.0
	Sowers	Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0
mech Average			5.7	3.7	3.7	0.7	0.0	0.0	0.0

Table E. For two selected "worst-case sites, Bait found on surface or < 6 inches below surface.

Trial #	colony	ap date	method	DAT	# of burrows out of 50 total						
					visible	location		# of grains visible			
						bait on surface	bait 0-6"	<25 grains	25-100 grains	>100 grains	
3	Weiss West	Mar	by hand	1	24	0	24	17	7	0	
3	Weiss West	Mar	by hand	2	20	0	20	11	7	0	
3	Weiss West	Mar	by hand	3	20	0	20	13	7	0	
3	Weiss West	Mar	by hand	4	7	0	7	4	3	0	
3	Weiss West	Mar	by hand	5	5	0	5	3	2	0	
3	Weiss West	Mar	by hand	6	2	0	2	1	1	0	
3	Weiss West	Mar	by hand	7	2	0	2	1	1	0	
2	cemetery	dec	mech	1	24	2	22	2	6	15	
2	cemetery	dec	mech	2	20	1	19	4	5	9	
2	cemetery	dec	mech	3	18	0	18	6	3	9	
2	cemetery	dec	mech	4	12	1	11	7	3	2	
2	cemetery	dec	mech	5	11	0	11	7	2	0	
2	cemetery	dec	mech	6	11	0	11	7	4	0	
2	cemetery	dec	mech	7	10	0	10	6	4	0	
					# of grain" value used in % calculation-->			13	63	113	
					% of burrows			% of total applied (1060 grains * 50 burrows)			Total
3	Weiss West	Mar	by hand	1	48%	0%	48%	0.4%	0.8%	0.0%	1.2%
3	Weiss West	Mar	by hand	2	40%	0%	40%	0.3%	0.8%	0.0%	1.1%
3	Weiss West	Mar	by hand	3	40%	0%	40%	0.3%	0.8%	0.0%	1.2%
3	Weiss West	Mar	by hand	4	14%	0%	14%	0.1%	0.4%	0.0%	0.5%
3	Weiss West	Mar	by hand	5	10%	0%	10%	0.1%	0.2%	0.0%	0.3%
3	Weiss West	Mar	by hand	6	4%	0%	4%	0.0%	0.1%	0.0%	0.1%
3	Weiss West	Mar	by hand	7	4%	0%	4%	0.0%	0.1%	0.0%	0.1%
2	cemetery	dec	mech	1	48%	4%	44%	0.0%	0.7%	3.2%	4.0%
2	cemetery	dec	mech	2	40%	2%	38%	0.1%	0.6%	1.9%	2.6%
2	cemetery	dec	mech	3	36%	0%	36%	0.1%	0.4%	1.9%	2.4%
2	cemetery	dec	mech	4	24%	2%	22%	0.2%	0.4%	0.4%	1.0%
2	cemetery	dec	mech	5	22%	0%	22%	0.2%	0.2%	0.0%	0.4%
2	cemetery	dec	mech	6	22%	0%	22%	0.2%	0.5%	0.0%	0.6%
2	cemetery	dec	mech	7	20%	0%	20%	0.1%	0.5%	0.0%	0.6%



Dan Freudenthal, Governor
Jason Earneyhough, Director
2219 Carey Ave. • Cheyenne, WY 82002
Phone: (307) 777-7321 • Fax: (307) 777-6593
Web: agriculture.wy.gov • Email: wda1@state.wy.us

The Wyoming Department of Agriculture is dedicated to the promotion and enhancement of Wyoming's agriculture, natural resources and quality of life.

July 5, 2012

TO: Document Processing Desk (SLN)
Office of Pesticide Programs – 7504P
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Ave N.W.
Washington, DC 20460

EPA Region VIII

FROM: Shane Howe
Wyoming Department of Agriculture

SUBJECT: NEW 24 (c) Registrations

Pursuant to Section 24 (c) of FIFRA, the Wyoming Department of Agriculture has approved the following SLN registration:

Product: Rozol Prairie Dog Bait

EPA Regs. No. 7173-286

Registrant: Lipha Tech Inc.

WY SLN No (s): 12-0003

Issue Date: 10/01/2012 Expiration Date: 3/15/2013

Purpose/Remarks: Application by mechanical bait placement machine to control black-tailed prairie dogs on rangeland and adjacent non-crop areas

Cc: Thomas J. Schmit Lipha Tech inc.
Hank Uhden, Wyoming Department of Agriculture
Polly Cross, Wyoming Department of Agriculture
Shane Howe, Wyoming Department of Agriculture



BOARD MEMBERS

Juan Reyes, District 1 • Jim Hodder, District 2 • Shaun Sims, District 3 • Jim Bennage, District 4 • Joe Thomas, District 5
Bryan Brost, District 6 • Jim Price, Jr., District 7

YOUTH ADVISORY BOARD MEMBERS

Patrick Zimmerer, Southeast • Dalin Winters, Northwest • John Hanson, Southwest • Bridger Kukowski, Northeast

Wyoming Dept. of Agriculture
2219 Carey Avenue
Cheyenne, WY 82002

Re: Request for 24(c) label for Rozol Prairie Dog Bait (EPA #7173-286)
to permit use of mechanical applicators for burrow baiting.

To whom it may concern,

It has come to my attention that our recent use practice of using mechanical baiters to apply Rozol Prairie Dog Bait may now be questioned by some enforcement authorities driven by the wording "hand" shown on the Sec. 3 product label.

3. Application Method: Hand application of bait, at least 6 inches down prairie dog burrows.

As you know, earlier 24(c) labels issued for KS, NE and WY dating back to 2006 did not have such a "by hand only" limitation. The states of KS & CO issued 24(c) labels reinstating mechanical baiting for the 2010 & 2011 baiting seasons, and as end users, we will continue to seek 24(c) labels permitting such use until this logical practice is reinstated on the Federal label.

JUSTIFICATION

Weed boards and licensed custom applicators have been using mechanical baiters responsibly for years without incidence of off-label use or secondary hazard to wildlife. These mechanical devices are calibrated and reliable. The devices are critical to our ability to manage the spread of this pest, and apply bait accurately in a time-efficient and cost-effective manner. Mechanical baiters are essential to avoiding human error and fatigue, as well as to enable getting the bait out during limited periods of favorable weather following snow melt during the short application window. There is simply no other method as effective at treating the acreage, ensuring all active burrows are treated, and guaranteeing that the bait is "six inches down-the-burrow" according to the label.

We request that a "Special Local Need" 24(c) registration be issued in Wyoming to allow this Rozol Prairie Dog Bait to be applied down the burrow with the assistance of mechanical application devices.

Sincerely,

Jean Hausharger

Wyoming Dept. of Agriculture
2219 Carey Avenue
Cheyenne, WY 82002

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Sincerely,

Bonnie Gladson

Wyoming Dept. of Agriculture
2219 Carey Avenue
Cheyenne, WY 82002

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Sincerely,

William E. Greer

June 15, 2012

Wyoming Dept. of Agriculture
2219 Carey Avenue
Cheyenne, WY 82002

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We request that a "Special Local Need" 24(c) registration be issued in Wyoming to allow this Rozol Prairie Dog Bait to be applied down the burrow with the assistance of mechanical application devices.

Sincerely,

Judy McCullough, President


June 15, 2012

Wyoming Dept. of Agriculture
2219 Carey Avenue
Cheyenne, WY 82002

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Sincerely,

Judy McCullough, President

Mr. Shane Howe
Wyoming Department of Agriculture,
2219 Carey Avenue.
Cheyenne, Wyoming 82002-0100

June 28, 2012

Re: Application for registration of
a new FIFRA Sec. 24(c) special local need product

Dear Mr. Howe,

The enclosed application is submitted in order to register a "special local need" product for control of Black-tailed Prairie Dogs in Wyoming. The parent product of this proposed SLN is Rozol Prairie Dog Bait, EPA Reg. No. 7173-286, which is already registered in Wyoming. The proposed SLN label would allow the bait to be applied using mechanical bait placement machines.

Justification for mechanical baiting of Rozol Prairie Dog Bait: Based on a study conducted by Charles Lee, Kansas State University Wildlife Biologist, the use of mechanical baiters to apply Rozol Prairie Dog Bait results in more consistent control of the black-tailed prairie dogs than does hand baiting. Hand baiting can and does result in licensed applicators not treating every active burrow due to the fatigue of walking large prairie dog towns. Mechanical baiting devices are calibrated and reliable allowing licensed applicators to place the precise amount of product in each active burrow. These bait placement machines better insure the product is correctly placed down into the prairie dog's burrow, significantly reducing bait exposure to the environment. The mechanical baiting devices are critical when treating a large prairie dog colony, by providing thorough, economical and precise application of Rozol Prairie Dog Bait, and resulting in maximum control.

These are control results that cannot be provided by the most common alternative prairie dog control product zinc phosphide. Zinc phosphide bait has odor and bad taste, which requires pre-baiting with untreated grain to entice the target pest to eat the toxic bait. This untreated grain, broadcast on the ground surface, attracts pheasants, turkeys, migrating geese, song birds and other grain-eating birds. These birds then consume the toxic grain bait when it is applied, potentially resulting in significant nontarget deaths.

This application is supported by the above-referenced study, "Field Efficacy and Hazards of Rozol Bait for Controlling Black-tailed Prairie Dogs" by Charles Lee of Kansas State University and Scott Hygnstrom of the University of Nebraska. In this study, more than 11,000 prairie dog burrows on more than 140 acres were baited. Four of the 10 treated plots studies were baited by hand, three were treated by mechanical bait placement machines, and three were treated by a combination of both hand and machine baiting. This study has already been provided to you.

Mr. Shane Howe
June 28, 2012

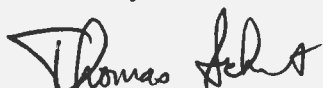
Included in this application package are:

1. This cover letter
2. Support letters from the user community requesting registration of this product
3. A completed federal SLN application form 8570-25
4. Proposed SLN label
5. Section 3 label for parent product EPA Reg. No. 7173-286
6. Document: Comparison of Bait location and amount for Rozol Prairie Dog Bait, applications made by hand vs. applications made with application equipment
7. Document: Statistical Analysis of Bait Placement in a Prairie Dog Efficacy Study

This SLN application is submitted at the request of the user community. We have included copies of support letters from individuals, including letters from some county weed boards.

Thank you for your attention to this matter, and please feel free to contact me directly if you have questions or concerns regarding this application.

Sincerely,



Thomas J. Schmit
Manager of Regulatory Affairs



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

July 16, 2012

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Wyoming Department of Agriculture
6607 Campstool Road
Cheyenne, WY 82002

ATTN: Shane Howe, Specialist II

Dear State Agency:

The Office of Pesticide Programs acknowledges receipt of the Section 24(c) application/notification for WY120003.

The package is being forwarded to the Product Manager for review.

To ensure that the Agency receives proper notification of your 24(c) applications/notifications it is necessary to use the correct mailing address. All new 24(c) applications should be sent to the following:

Document Processing Desk (SLN)
Office of Pesticide Programs -7504P
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

If you have any questions concerning the administrative screening of the package please contact the Front End Unit at (703)305-5780.

Sincerely,

Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division